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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,268

03/31/2004

Ramesh V. Peri

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EXAMINER

FIEGLE, RYAN PAUL

ART UNIT

PAPER NUMBER

2183

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,268

Applicant(s)

PERI ET AL.

Examiner

Ryan P. Fiegler

Art Unit

2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. An IDS not belonging to the instant application was incorrectly put in the file. If there was actually an IDS belonging to this case, please resubmit it.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 7-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 7-9 refer to a machine-accessible medium which is defined by the specification to include carrier waves which have been found to be unstatutory.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-12 rejected under 35 U.S.C. 102(b) as being anticipated by Sturges et al. (US Patent 5,961,637).

6. As per claim 1:

A processor, comprising:

an instruction pipeline having N stages (column 3, 4) (Fetching, decoding and executing are discussed);

an instruction set, comprising a branch instruction and a branch notification instruction operative to receive at least one argument M (column 3, lines 44-55); and

a loading module to place instructions in said instruction pipeline (column 4, lines 30-35),

wherein said branch notification instruction is to indicate to said loading module via said at least one argument M that a branch instruction will occur within M instructions in said instruction pipeline, and wherein when said branch notification instruction is executed, said loading module is to load an instruction beginning at a branch point for said branch (column 3, lines 44-55; column 4, lines 53-61; column 5, lines 1-4; column 9, lines 51-67).

7. As per claim 2:

The processor of claim 1, wherein said branch notification instruction has at least two arguments comprising a number of instructions M, and a branch target (column 9, lines 51-67).

8. As per claim 3:

The processor of claim 1, wherein said branch notification instruction is at least one of 16 bits or 32 bits (column 11, lines 40-43).

9. As per claim 4:

A method of static branch prediction, comprising:

inserting a branch notification instruction into an instruction sequence before a branch instruction, wherein said branch notification instruction indicates a separation of M instructions from said branch instruction, and wherein said branch has a branch target (column 3, lines 44-55);

executing said branch notification instruction (column 3, lines 44-55); and

fetching an instruction starting at said branch target immediately after executing said branch notification instruction (column 3, lines 44-55).

10. As per claim 5:

The method of claim 4, wherein said inserting a branch notification instruction further comprises:

inserting a branch notification instruction indicating both a separation of M instructions from said branch instruction and a branch target (column 3, lines 44-55; column 4, lines 53-61; column 5, lines 1-4; column 9, lines 51-67).

11. As per claim 6:

The method of claim 4, wherein said inserting a branch notification instruction further comprises inserting one of a 16 bit and 32 bit branch notification instruction according to said separation M (column 3, lines 44-55; column 4, lines 53-61; column 5, lines 1-4; column 9, lines 51-67).

12. As per claims 7-9:

Claims 7-9 refer to a machine-accessible medium containing software to run the method of claims 4-6. While Sturges does not explicitly disclose such a medium, it is inherent that it is present to be able to execute the method on a system.

13. As per claim 10:

A system, comprising:

a random-access memory (Figure 4, item 41);

a processor coupled to said memory, said processor comprising:

an instruction pipeline having N stages (column 3, 4) (Fetching, decoding and executing are discussed);

an instruction set, comprising a branch instruction and a branch notification instruction operative to receive at least one argument M (column 3, lines 44-55); and

a loading module to place said sequence of instructions in said instruction pipeline (column 4, lines 30-35);

wherein said branch notification instruction is to indicate to said loading module via said at least one argument M that a branch instruction will occur within M instructions in said instruction sequence, and wherein when said branch notification instruction is executed, said loading module is to load an instruction beginning at a branch point for said branch (column 3, lines 44-55; column 4, lines 53-61; column 5, lines 1-4; column 9, lines 51-67).

14. As per claim 11:

The system of claim 10, wherein said branch notification instruction has at least two arguments comprising:

a number, which indicates the location of forthcoming branch instruction in said sequence of instructions (column 9, lines 51-67); and

a branch target location.

15. As per claim 12:

The system of claim 10, wherein said branch notification instruction is at least one of 16 bits or 32 bits, depending on the offset needed to encode the branch target (column 11, lines 40-43).

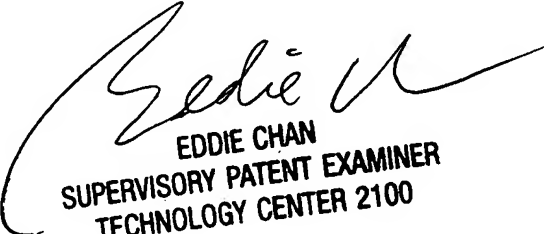
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan P. Fiegler whose telephone number is 571-272-5534. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on 571-272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan P Fiegle
Examiner
Art Unit 2183



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SUPERVISORY PATENT EXAMINER
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